Patent claims

1. Fluorescent film, particularly for use with a low-pressure discharge lamp, characterized in that the fluorescent film (5) is formed as a silicone elastomer in which the luminescent particles are embedded.

2. Fluorescent film according to claim 1, characterized in that the silicone elastomer can be produced by the following process:

a) mixing a hydroxyl polydiorganosiloxane with an organohydrogen siloxane,

b) adding luminescent particles, and

c) generating a chemical reaction by means of a platinum catalyst at room temperature.

3. Fluorescent film according to claim 2, characterized in that hydroxyl polydiorganosiloxane comprises various polymers with a minimum viscosity of 1000 centipoise at 25°C.

4. Fluorescent film according to claim 3, characterized in that the hydroxyl polydiorganosiloxane is formed as hydroxyl polydimethylsiloxane, its copolymers, phenylmethylsiloxane and/or polymethyl-3,3,3-trifluoropropylsiloxane.

5. Fluorescent film according to claim 3 or 4, characterized in that the organohydrogen siloxane is formed as silicone with at least 2 silicon-bonded hydrogen atoms per molecule.

6. Fluorescent film according to claim 5, characterized in that the organohydrogen siloxane comprises homopolymers, copolymers or mixtures thereof.

7. Fluorescent film according to one of claims 2 to 6,

characterized in that the platinum catalyst comprises a platinum chloride, platinum salts or chloroplatinic acid.

8. Fluorescent film according to claim 7, characterized in that the chloroplatinic acid is in the form of a hexahydrate or in anhydrous form.

9. Fluorescent film according to one of the preceding claims, characterized in that the thickness of the fluorescent film (5) is between 10 and 800 μm.

10. Fluorescent film according to one of the preceding claims, characterized in that the surface density of the luminescent particles is between 1 and 20 mg/cm^2.

11. Fluorescent film according to one of the preceding claims, characterized in that the grain size of the luminescent particle is between 5 and 15 μm.

12. Irradiation arrangement, comprising a low-pressure discharge lamp with an enveloping body which is transparent to UVC, electrodes which can be contacted from the outside projecting into the enveloping body, and a luminescent coating, characterized in that the luminescent coating is formed as a fluorescent film (5) formed of a silicone elastomer in which the luminescent particles are embedded.

13. Irradiation arrangement according to claim 12, characterized in that the fluorescent film (5) is applied to the outer side of the enveloping body (7).

14. Irradiation arrangement according to claim 13, characterized in that fluorescent films (5) with different doping are applied to the enveloping body (7).

15. Irradiation arrangement according to one of claims 12 to 14, characterized in that a displacement body (11) is arranged in the enveloping body (7), so that channels (13) are formed between the enveloping body (7) and displacement body (11).

16. Irradiation arrangement according to claim 15, characterized in that the displacement body (11) is constructed as a closed hollow body.

17. Irradiation arrangement according to one of claims 15 or 16, characterized in that a reflector layer (12) is applied at least partially to the outer side of the displacement body (11).

18. Irradiation arrangement according to one of claims 15 to 17, characterized in that the displacement body (11) comprises a material that is transparent to the emitted radiation.

19. Irradiation arrangement according to one of claims 15 to 18, characterized in that the low-pressure discharge lamp (3) is constructed with a fastening arrangement for receiving displacement bodies (11) with different geometric shaping.

20. Irradiation arrangement according to one of claims 15 to 19, characterized in that the displacement body (11) is shaped irregularly, so that the channel (13) between the enveloping body (7) and the displacement body (11) has different widths along the longitudinal direction.

21. Irradiation arrangement according to one of claims 12 to 20, characterized in that the fluorescent film (5) is fitted to the enveloping body (7) in the form of an interchangeable frame.

22. Irradiation arrangement according to claim 21, characterized

in that the films (5) with different doping are wound up on dispensing and take-up rollers (6).

23. Irradiation arrangement for therapeutic purposes according to one of claims 12, 15 or 16, characterized in that a fluorescent film (5) according to one of claims 1 to 11 is wound around the part of the body to be treated in the manner of a bandage.

24. Method for producing a fluorescent film according to claim 2, comprising the following method steps:

a) mixing a hydroxyl polydiorganosiloxane with an organohydrogen siloxane,

b) adding luminescent particles, and

c) generating a chemical reaction by means of a platinum catalyst at room temperature.

25. Method for producing a fluorescent film according to claim 24, characterized in that hydroxyl polydiorganosiloxane comprises various polymers with a minimum viscosity of 1000 centipoise at 25°C.

26. Method for producing a fluorescent film according to claim 25, characterized in that the hydroxyl polydiorganosiloxane is formed as hydroxyl polydimethylsiloxane, its copolymers, phenylmethylsiloxane and/or polymethyl-3,3,3-trifluoropropylsiloxane.

27. Method for producing a fluorescent film according to claim 24, 25 or 26, characterized in that the organohydrogen siloxane is formed as silicone with at least 2 silicon-bonded hydrogen atoms per molecule.

28. Method for producing a fluorescent film according to claim

27, characterized in that the organohydrogen siloxane comprises homopolymers, copolymers or mixtures thereof.

29. Method for producing a fluorescent film according to one of claims 24 to 28, characterized in that the platinum catalyst comprises a platinum chloride, platinum salts or chloroplatinic acid.

30. Method for producing a fluorescent film according to claim 29, characterized in that the chloroplatinic acid is in the form of a hexahydrate or in anhydrous form.